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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.10/KRIDL/CEMENT/2013-14

Date: 13.03.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager** , KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
REFERENCE	:	AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	165 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	27.00 %	-

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Job No.: CTCE/BBMP/W.No.10/KRIDL/SAND/2013-14 : 13.03.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014

Date of Testing : 13.03.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	99	4.95	4.95	95.1	90-100
2.36	220	11.00	15.95	84.1	75-100
1.18	485	24.25	40.20	59.8	55-90
600 Micron	432	21.60	61.80	38.2	35-59
300 Micron	505	25.25	87.05	13.0	8-30
150 Micron	219	10.95	98.00	2.0	0-10

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Job No.: CTCE/BBMP/W.No.10/KRIDL/AGG/2013-14 : 13.03.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014

Date of Testing : 13.03.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25300**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	995	3.93	3.93	96.07	95-100
20	15562	61.51	65.44	34.56	30-70
10	5946	23.50	88.94	11.06	10-35
4.75	2496	9.87	98.81	1.19	0-5

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Job No.: CTCE/BBMP/W.No.10/KRIDL/AGG/2013-14 : 13.03.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Reference : AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014

Date of Testing : 13.03.2014

Material : 20mm Aggregates

›tal Wt. of Aggregates in gms= **5000**

Tabel - 1

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	195	3.90	3.9	96.10	95-100
10	3134	62.68	66.6	33.42	25-55
4.75	1561	31.22	97.8	2.20	0-10

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.10/KRIDL/STEEL/2013-14 03.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014
Date of Test	:	18.03.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	510	543	12.85	O.K	O.K

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Job No.: CTCE/BBMP/W.No.10/KRIDL/STEEL/2013-14 18.03.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014
Date of Test	:	18.03.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	547	13.15	O.K	O.K

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Job No.: CTCE/BBMP/W.No.10/KRIDL/STEEL/2013-14 18.03.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager**, KRIDL, Bangalore.
Name of the work	:	Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	:	AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014
Date of Test	:	18.03.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	515	551	13.40	O.K	O.K

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Job No.: CTCE/BBMP/W.No.10/KRIDL/CC Blocks/2013-14 20.03.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the Work : Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.

Refernce : AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014

Size of Block : 400 mm x 200 mm x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum required Compressive Strength
			kN	N/mm^2	N/mm^2
1	18.03.2014	20.03.2014	259.3	3.24	3.2
2	18.03.2014	20.03.2014	262.5	3.28	
3	18.03.2014	20.03.2014	265.8	3.32	

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Job No.: CTCE/BBMP/W.No.10/KRIDL/CUBE/2013-14 28.04.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	**: Technical Manager,** KRIDL, Bangalore.
Name of the work	: Improvements to 3 Burial grounds in Ward No.10 (Doddabommasandra) Vidyaranyapura Sub Division, BBMP, Bangalore.
Reference	: AEE/VSD/PR/451/1/2013-14 Dated: 11.03.2014
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	31.03.2014	28.04.2014	8.146	479.3	21.30
2	31.03.2014	28.04.2014	8.368	511.3	22.72
3	31.03.2014	28.04.2014	8.254	487.5	21.67

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